We claim:

### 1. A compound of Formula I:

$$R^{1}$$
 $C$ 
 $CH_{2})_{a}$ 
 $CCH_{2})_{b}$ 
 $R^{2}$ 

#### 5 wherein:

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R¹ is -CN or -CONR⁴R⁵;

 $R^2$  is  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  cycloalkyl,  $C_3$ - $C_6$  heterocycloalkyl,  $C_6$ - $C_{14}$  aryl, or a group of the formula:

$$R^{3e}$$
 $R^{3e}$ 
 $R^{3e}$ 

10 R<sup>3a</sup>, R<sup>3b</sup>, R<sup>3c</sup>, R<sup>3d</sup> and R<sup>3e</sup> are each independently H, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, – (CH<sub>2</sub>)<sub>d</sub>OH, halo, trifluoromethyl, cyano, –(CH<sub>2</sub>)<sub>d</sub>NR<sup>6</sup>R<sup>7</sup>, –CO(C<sub>1</sub>-C<sub>4</sub> alkyl), –OCO(C<sub>1</sub>-C<sub>4</sub> alkyl), –CH(OH)(C<sub>1</sub>-C<sub>4</sub> alkyl), –C(OH)(C<sub>1</sub>-C<sub>4</sub> alkyl)<sub>2</sub>, –SO<sub>2</sub>NH<sub>2</sub>, –(CH<sub>2</sub>)<sub>d</sub>CONR<sup>8</sup>R<sup>9</sup> or –(CH<sub>2</sub>)<sub>d</sub>COO(C<sub>1</sub>-C<sub>4</sub> alkyl);

 $R^4,\,R^5,\,R^6,\,R^7,\,R^8$  and  $R^9$  are each independently H or  $C_1\text{-}C_4$  alkyl;

15 Het is pyridyl, pyrazinyl or thienyl;

a is 1, 2, 3 or 4;

b is 1, 2 or 3;

c is 1, 2 or 3;

d is 0, 1 or 2; and

X<sup>1</sup> and X<sup>2</sup> are each independently CH₂ or O; or a pharmaceutically acceptable salt or solvate thereof.

## 2. A compound according to claim 1 wherein:

$$R^2$$
 is  $R^4$  or Het.

3. A compound of Formula II:

wherein:

5 R<sup>10</sup> is a group of the formula:

$$R^{136}$$
 $R^{136}$ 
 $R^{136}$ 

 $R^{11}$  and  $R^{12}$  are each independently H or  $C_{1\text{-}}C_{4}$  alkyl, with the proviso that  $R^{11}$  and  $R^{12}$  are not both H;

 $R^{13a}$ ,  $R^{13b}$ ,  $R^{13c}$ ,  $R^{13d}$ , and  $R^{13e}$  are each independently H,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy, — (CH<sub>2</sub>)<sub>g</sub>OH, halo, trifluoromethyl, cyano,  $-(CH_2)_gNR^{14}R^{15}$ ,  $-CO(C_1$ - $C_4$  alkyl),  $-OCO(C_1$ - $C_4$  alkyl),  $-CH(OH)(C_1$ - $C_4$  alkyl),  $-C(OH)(C_1$ - $C_4$  alkyl)<sub>2</sub>,  $-SO_2NH_2$ ,  $-(CH_2)_gCONR^{16}R^{17}$  or  $-(CH_2)_gCOO(C_1$ - $C_4$  alkyl);

 $R^{14}$ ,  $R^{15}$ ,  $R^{16}$  and  $R^{17}$  are each independently H or  $C_1$ - $C_4$  alkyl;

Het is pyridyl, pyrazinyl or thienyl;

15 e is 1, 2 or 3;

f is 1, 2 or 3;

g is 0, 1 or 2; and

X³ and X⁴ are each independently CH₂ or O;

or a pharmaceutically acceptable salt or solvate thereof.

4. A compound according to claim 14 wherein:

R<sup>10</sup> is a group of the formula:

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5. A compound according to claim 14 wherein:

R<sup>10</sup> is a group of the formula:

X° is CH₂; and X⁴ is O.

6. A compound of Formula III:

wherein:

R<sup>18</sup> is -CN or -CONR<sup>20</sup>R<sup>21</sup>;

 $R^{1\theta}$  is  $C_3$ - $C_6$  cycloalkyl,  $C_3$ - $C_6$  heterocycloalkyl or  $(C_6$ - $C_{14}$  aryl)– $(C_1$ - $C_4$  alkyl) $_v$ ;

R<sup>20</sup> and R<sup>21</sup> are each independently H or C<sub>1</sub>-C<sub>4</sub> alkyl;

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h is 1, 2, 3 or 4; and

v is 0, 1 or 2;

or a pharmaceutically acceptable salt or solvate thereof.

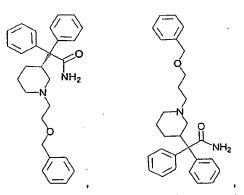
7. A compound selected from:

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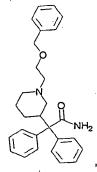
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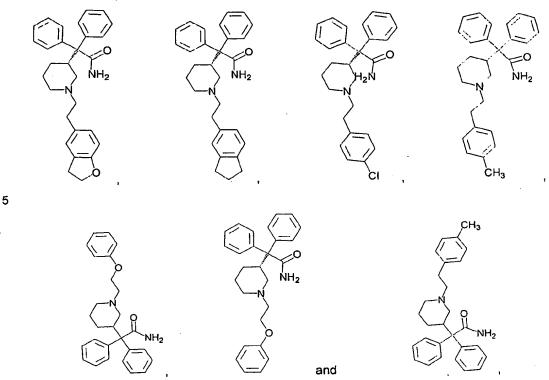


and



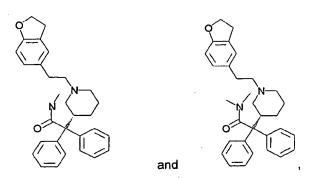
or a pharmaceutically acceptable salt or solvate thereof.

# 8. A compound selected from:



or a pharmaceutically acceptable salt or solvate thereof.

## 10 9. A compound selected from:



or a pharmaceutically acceptable salt or solvate thereof.

10. A compound selected from:

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or a pharmaceutically acceptable salt or solvate thereof.

5 11. A method of treating a mammal infected with human immunodeficiency virus (HIV) comprising administering to said mammal an effective amount of a compound of Formula I:

$$R^{1}$$
 $C$ 
 $N$ 
 $CH_{2})_{a}$ 
 $C$ 
 $CH_{2})_{b}$ 
 $R^{2}$ 

wherein:

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R1 is -CN or -CONR4R5;

 $R^2$  is  $C_1$ - $C_4$  alkyl,  $C_3$ - $C_6$  cycloalkyl,  $C_3$ - $C_6$  heterocycloalkyl,  $C_6$ - $C_{14}$  aryl, or a group of the formula:

$$R^{3e}$$
 $R^{3e}$ 
 $R$ 

 $R^{3a}$ ,  $R^{3b}$ ,  $R^{3c}$ ,  $R^{3d}$  and  $R^{3e}$  are each independently H,  $C_1$ - $C_4$  alkyl,  $C_1$ - $C_4$  alkoxy, –  $(CH_2)_dOH$ , halo, trifluoromethyl, cyano, – $(CH_2)_dNR^6R^7$ , – $CO(C_1$ - $C_4$  alkyl), – $OCO(C_1$ - $C_4$  alkyl), – $C(OH)(C_1$ - $C_4$  alkyl), – $C(OH)(C_1$ - $C_4$  alkyl), – $C(OH)(C_1$ - $C_4$  alkyl);

 $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$ ,  $R^8$  and  $R^9$  are each independently H or  $C_1$ - $C_4$  alkyl; Het is pyridyl, pyrazinyl or thienyl;

a is 1, 2, 3 or 4;

b is 1, 2 or 3;

c is 1, 2 or 3;

d is 0, 1 or 2; and

 $\rm X^1$  and  $\rm X^2$  are each independently  $\rm CH_2$  or O; or a pharmaceutically acceptable salt or solvate thereof.

12. A method of treating a mammal infected with human immunodeficiency virus (HIV) comprising administering to said mammal an effective amount of a compound of Formula II:

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wherein:

R<sup>10</sup> is a group of the formula:

or Het;

 $R^{11}$  and  $R^{12}$  are each independently H or  $C_1.C_4$  alkyl, with the proviso that  $R^{11}$  and  $R^{12}$  are not both H;

 $R^{13a}, \, R^{13b}, \, R^{13c}, \, R^{13d}, \, \text{and} \, R^{13e} \, \text{are each independently H, C}_1\text{-C}_4 \, \text{alkyl}, \, C_1\text{-C}_4 \, \text{alkoxy}, \, - (CH_2)_g \text{OH}, \, \text{halo, trifluoromethyl, cyano, } - (CH_2)_g \text{NR}^{14} R^{15}, \, - \text{CO}(C_1\text{-C}_4 \, \text{alkyl}), \, - \text{OCO}(C_1\text{-C}_4 \, \text{alkyl}), \, - \text{CO}(C_1\text{-C}_4 \, \text{alkyl}), \, - \text{CO}(C_1\text{-C}_4 \, \text{alkyl})_2, \, - \text{SO}_2 \text{NH}_2, \, - (CH_2)_g \text{CONR}^{16} R^{17} \, \text{or} \, - (CH_2)_g \text{COO}(C_1\text{-C}_4 \, \text{alkyl});$ 

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 $R^{14},\,R^{15},\,R^{16}$  and  $R^{17}$  are each independently H or  $C_1\text{-}C_4$  alkyl;

Het is pyridyl, pyrazinyl or thienyl;

e is 1, 2 or 3;

f is 1, 2 or 3;

g is 0, 1 or 2; and

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X<sup>3</sup> and X<sup>4</sup> are each independently CH<sub>2</sub> or O;

or a pharmaceutically acceptable salt or solvate thereof.

13. A method of treating a mammal infected with human immunodeficiency virus (HIV) comprising administering to said mammal an effective amount of a compound of Formula III:

$$R^{18}$$
 $N \longrightarrow (CH_2)_h$ 
 $R^{10}$ 

5 wherein:

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 $R^{18}$  is -CN or  $-CONR^{20}R^{21};$   $R^{19}$  is  $C_3\text{-}C_6$  cycloalkyl,  $C_3\text{-}C_6$  heterocycloalkyl or  $(C_6\text{-}C_{14} \text{ aryl})\text{-}(C_1\text{-}C_4 \text{ alkyl})\text{-};$   $R^{20}$  and  $R^{21}$  are each independently H or  $C_1\text{-}C_4$  alkyl; h is 1, 2, 3 or 4; and

10 v is 0, 1 or 2;

or a pharmaceutically acceptable salt or solvate thereof.

14. A method of treating a mammal infected with human immunodeficiency virus (HIV) comprising administering to said mammal an effective amount of a compound according to Formula IV:

wherein:

Y is a direct link,  $-CH_2$ -,  $-(CH_2)_2$ -,  $-CH_2O$ - or  $-CH_2S$ -;  $R^{22}$  is -CN or  $-CONH_2$ ;  $R^{23}$  is a group of the formula:

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- 53 **-**

or Het;

wherein

 $R^{24} \text{ and } R^{25} \text{ are each independently H, C}_1\text{-C}_4 \text{ alkyl, C}_1\text{-C}_4 \text{ alkoxy, } -(\text{CH}_2)_k\text{OH, halo, trifluoromethyl, cyano, } -(\text{CH}_2)_k\text{NR}^{26}R^{27}, -\text{CO}(\text{C}_1\text{-C}_4 \text{ alkyl), } -\text{OCO}(\text{C}_1\text{-C}_4 \text{ alkyl), } -\text{CH}(\text{OH})(\text{C}_1\text{-C}_4 \text{ alkyl), } -\text{CO}(\text{C}_1\text{-C}_4 \text{ alkyl), } -\text{CO}(\text{C}_1\text{-C}_4$ 

R<sup>28</sup> and R<sup>27</sup> are each independently H or C<sub>1</sub>-C<sub>4</sub> alkyl;

k is 0, 1 or 2;

X<sup>5</sup> and X<sup>6</sup> are each independently O or CH<sub>2</sub>;

j is 1, 2 or 3; and

Het is pyridyl, pyrazinyl or thienyl;

or a pharmaceutically acceptable salt or solvate thereof.

15. A pharmaceutical composition that is effective in treating HIV in an infected mammal comprising a pharmaceutically acceptable carrier and an effective amount of a compound of Formula IV:

$$R^{22}$$
 $N$ 
 $CH_2$ 
 $Y$ 
 $R^{23}$ 

wherein:

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Y is a direct link, -CH<sub>2</sub>-, -(CH<sub>2</sub>)<sub>2</sub>-, -CH<sub>2</sub>O- or -CH<sub>2</sub>S-;

R<sup>22</sup> is -CN or -CONH<sub>2</sub>;

R<sup>23</sup> is a group of the formula:

$$R^{24}$$
  $(CH_2)_j$  or Het;

25 wherein

 $R^{24} \text{ and } R^{25} \text{ are each independently H, C}_1\text{-C}_4 \text{ alkyl, C}_1\text{-C}_4 \text{ alkoxy, -(CH}_2)_k\text{OH, halo, trifluoromethyl, cyano, -(CH}_2)_k\text{NR}^{26}R^{27}, -\text{CO(C}_1\text{-C}_4 \text{ alkyl), -OCO(C}_1\text{-C}_4 \text{ alkyl), -CH(OH)(C}_1\text{-C}_4 \text{ alkyl), -CO(C}_1\text{-C}_4 \text{ alkyl)}, -\text{SO}_2\text{NH}_2, -\text{(CH}_2)_k\text{CONR}^{26}R^{27} \text{ or -(CH}_2)_k\text{COO(C}_1\text{-C}_4 \text{ alkyl);}$ 

 $R^{26}$  and  $R^{27}$  are each independently H or  $C_1$ - $C_4$  alkyl;

k is 0, 1 or 2;

X<sup>5</sup> and X<sup>6</sup> are each independently O or CH<sub>2</sub>;

j is 1, 2 or 3; and

Het is pyridyl, pyrazinyl or thienyl;

or a pharmaceutically acceptable salt or solvate thereof.

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